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Margaret M. Hasson

PATENT

Attorney Docket No.: 51302-00002 (14353-12)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Acey et al.

Serial No.: 10/797,748

Filed: March 9, 2004

Title: METAL BINDING PROTEINS AND ASSOCIATED METHODS

Conf. No.: 4003

Examiner: Unassigned

Art Unit: 1645

**INFORMATION DISCLOSURE STATEMENT
UNDER 37 C.F.R. §§ 1.56. 1.97 AND 1.98**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with the duty of disclosure under 37 C.F.R. §§ 1.56. 1.97 and 1.98, and in accordance with the provisions in the Manual of Patent Examining Procedure §§609 and 707.05(b), enclosed is a copy of the substitute for FORM PTO-1449 listing the references that are known to applicant. Applicants enclose copies of each of the listed references which are not U.S. patents.

This art is being filed for consideration in compliance with § 1.97 within the following time period:

37 C.F.R. § 1.97(a)(3) This information is being filed for consideration and entry before the mailing of a first Office Action on the merits.

The submission of the above-described documents does not constitute an admission nor should it be construed as a representation that: a search has been made, or that it is material to patentability as defined in § 1.56(b).

Applicant reserves the right to antedate or otherwise remove the documents as references.

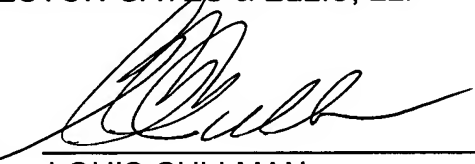
It is respectfully requested that the listed references be considered in the examination of this application and identified on the list of references cited on the patent issuing for this application. Applicant also requests that an initialed copy of the substitute for FORM PTO-1449 be entered in the application file and returned to applicant with the next communication from the Office in accordance with MPEP § 609.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application. Applicants believe no fee is due with this filing, however, if it is deemed that a fee is due, the Director is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-3207 associated with this response.

Respectfully submitted,

PRESTON GATES & ELLIS, LLP

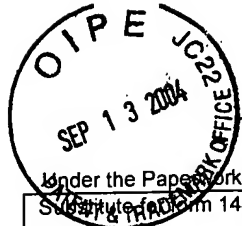
Date 9/9/04

By: 
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Enclosures: PTO-1440 and non-US references cited thereon
PCT International Search Report



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Submit to: Patent and Trademark Office, P.O. Box 1449A/PTO

Complete if Known**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT***(use as many sheets as necessary)*

Sheet	1	of	1	Application Number	10/797,748
				Filing Date	03/09/2004
				First Named Inventor	Acey et al.
				Group Art Unit	1645
				Examiner Name	Unassigned
				Attorney Docket Number	51302-00002 (14353-0012)

U.S. PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
		US-5,500,353-A	03/19/1996	SMIT, et al.	Col. 7, lines 14-45, col. 8, line 43 to col. 9, line 33
		US-5,814,480	09/29/1998	HILLMAN, et al.	
		US-5,824,512	10/20/1998	PAZIRANDEH, et al.	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publications of Cited Documents MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Office ³	Number ⁴	Kind Code ⁵				
		PCT	US02/17273		Roger A. Acey	06/19/03		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		BROOK et al., Purification of metallothionein-like metal binding proteins from Artemia. Molecular Biology of the Cell. 1994, Vol. 5, No. Suppl, page226A, Abstract No. 1316.	
		CHEN et al., The induction and extraction of metallothioneins in Artemia. Chinese Journal of Oceanology and Limnology. 1994, Vol. 12, No. 2 pages 175-179, especially pages 177-178.	
		FISCHER et al., Recent excitement regarding metallothionein. Proceeding of the National Academy of Sciences USA. 1998, Vol. 95 pages 333-334.	
		HAMMER, Metallothionein. Annual Review of Biochemistry. 1986, Vol. 55, pages 913-951.	
		"NOTICE" regarding publication developed under Grant No. CX824823 awarded by the U.S. EPA.	
		PEDERSEN et al., Primary structures of decapod crustacean metallothioneins with special emphasis on freshwater and semi-terrestrial species. Biochemistry Journal 1996, Vol. 319, pages 999-1003.	
		MA et al., Recent Developments for in situ treatment of metal contaminated soils. Prepared for U.S. EPA by PRC Management Inc., dated March 5, 1997 and published on web site at http://www.clu-in.org/download/remed/metals2.pdf .	
		EVANKO et al., Remediation of metals-contaminated soils and groundwater. Technology Evaluation Report prepared for GWRTAC dated October, 1997.	
		VALLS et al., Engineering a mouse metallothionein on the cell surface of <i>Ralstonia eutropha</i> CH34 for immobilization of heavy metals in soil. Nature Biotechnology. 2000, Vol. 18 pages 661-665.	
		DEL RAMO et al., Effect of cadmium pre-exposure in cadmium acculation by brine shrimp Artemia: involvement of low-molecular-weight cadmium-binding ligands. Marine Environmental Research 1993 Vol. 5, pages 29-33.	
		SODE et al., Construction of a marine cyanobacterial strain with increased heavy metal ion tolerance by introducing exogenic metallothionein gene. Journal of Marine Biotechnology 1998 Vol. 6 pages 174-177.	

Examiner Signature	Date Considered
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.4. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent documents. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 USC 122 and 37 CFR 1.14. This collection is estimated to take 2.0 hours to complete, including gathering, preparing, and submitting the completed application or to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, Patent and Trademark Office, US Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS, SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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